

SECTION 09870
URETHANE PAINT

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Application of urethane paint system to exterior painted sheet metal remaining in place, steel lintels or shelf angles, door frames and hollow metal doors, including surface preparation, priming and top coats.

1.02 RELATED SECTIONS

- A. Section 01110 – Summary of Work
- B. Section 07920 – Sealants and Caulking

1.03 SUBMITTALS

- A. Provide submittals in accordance with Section 01330 and 01340 and as required by the consultant.
- B. Product Data: Submit manufacturer's technical information including basic material analysis, installation instructions, Material Safety Data Sheets (MSDS), and color chart for each material specified. Identify by manufacturer's product number and general classification.
- C. Samples: Provide representative samples in selected color for review. Submit 12-inch X 12-inch samples on 24 ga. galvanized steel sheet for The City of Houston's review of color and texture only.
- D. Field Samples: On one lintel surface, prepare sample. Provide 4-foot X 4-foot full-coat finish sample of surface as directed until required color, and texture is obtained. Sample to be representative of surface preparation, primer application, and exterior coating application to be used in the completed Work.
- E. Field Tests:
 - 1. Perform adhesion tests on installed cured sample or samples prior to beginning exterior coating installation.
- F. Final acceptance of colors will be from samples applied on job. Accepted sample may remain as part of Work.

1.04 QUALITY ASSURANCE

- A. As provided in Section 01450 and the GENERAL CONDITIONS OF THE CONTRACT.
- B. Qualifications of Manufacturer
 - 1. Products used in the work included in this section shall be produced by manufacturers regularly engaged in the manufacturing of similar items and with a history of successful production and product installations.
- C. Qualifications of Installers
 - 1. Installers shall be thoroughly trained and experienced in the necessary crafts. Installers shall be made familiar with any unique requirements specified for proper performance of the work in this section.
- D. Rejection
 - 1. In the acceptance or rejection of work under this section, no allowance will be made for lack of skill or specification understanding on the part of the workmen. It shall be incumbent upon the contractor to use adequate numbers of skilled installers and to instruct them in the requirements of the project specifications as well as maintaining a set of the project specifications and drawings on the roof at all times.
- E. Replacement
 - 1. In the event inadequate or improper installation is determined, contractor shall make all repairs and replacements required to render the installation compliant with the project specifications. Replacements, due to improper performance shall be at the sole cost of the contractor.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Coordinate delivery with Consultant.
- B. Material containers, mixing, and dilution:
 - 1. Containers shall be closed and sealed except when materials are being removed.
 - 2. Follow Manufacturers' instructions for storing, mixing and stirring.

3. Cements, adhesives, primers, coatings, and sealants which have been diluted or cut-back, after their manufacture shall not be incorporated into the Work.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Work shall not commence during inclement weather.
- B. Work shall not commence on a day when precipitation is imminent or probable.
- C. Work shall not proceed over damp substrates.
- D. Coatings, sealants, caulking, primers and adhesives shall not be applied when the surrounding air and surface temperature, relative humidity, or wind velocity is not within the range acceptable under the manufacturer's recommendations.
- E. Do not begin work if rain is expected within twenty-four hours of application or, if temperatures are expected to fall below 50° F, during the duration of the job.
- F. Work demolition or removal work shall not commence on a day when the chance of precipitation is 30% or higher as forecast by the National Weather Service or local forecasts.

1.07 SEQUENCING AND SCHEDULING

- A. Proceed with new sealant installations concurrently with membrane and sheet metal installation.
- B. Coordinate and schedule all phases of the Work of the Contract Documents with the City of Houston, Consultant, Subcontractors, Material Suppliers and other parties as necessary to ensure the smooth and orderly transition of separate phases, or portions, of the Work, the timely placement of components and materials, including the complete cooperation between parties and proper execution of the Work.
- C. Work shall not be performed outside of normal business hours without the prior approval of the Consultant and/or The City of Houston's representative.

1.08 WARRANTY

- A. General Warranty: Special warranties specified in this Article shall not deprive The City of Houston of other rights The City of Houston may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.

- B. Special Installer's Warranty: Written warranty, signed by Installer agreeing to repair or replace elastomeric joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

- 1. Warranty Period: Five years from date of Substantial Completion.

- C. Special Manufacturer's Warranty: Written warranty, signed by the paint manufacturer agreeing to furnish paint to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.

- 1. Warranty Period: 5 years from date of Substantial Completion.

1.09 ADDITIONAL STOCK

- A. Provide one gallon container of each primer and finish coat to The City of Houston.
- B. Label each container with material name and type, color, texture, and application location, in addition to manufacturer's label.

PART 2 – PRODUCTS

2.01 URETHANE PAINT

- A. Aliphatic Urethane Semi-Gloss Enamel Paint: For overhead horizontal surfaces, anti-corrosion coating.
- B. Acceptable Products: Devoe Devthane 378 H paint or approved equal, color to be chosen by The City of Houston from standard color chart.
- C. Application dry film thickness shall be in accordance with manufacturer's written application instructions.

2.02 PRIMER

- A. Primer: Primer suitable for purpose intended and compatible with existing exterior steel surfaces.
- B. Acceptable Products: Devoe Devron 205 Primer or as recommended by paint manufacturer for specific substrate conditions.

PART 3 – EXECUTION

3.01 PROTECTION

- A. Protect work of other trades, whether to be coated or not, against damage.
- B. Protect or remove existing signage on building, monument sign, and carport screen wall. Store signage at location as directed by The City of Houston. Re-install signage at completion of work.
- C. Protect adjacent surfaces including windows, window frames, light fixtures, doors, door frames, and ventilation grilles, during both preparation and coating installation work.

3.02 PREPARATION

- A. Follow all coating manufacturer recommendations.
- B. Pressure wash (2,100 psi) surfaces to receive new coating to remove oil, grease, laitance, caulk, mold, dirt, mildew, loose particles, and blistered or delaminated existing coating. Allow substrate to dry for a minimum of twenty-four hours.
- C. Remove all rust and existing paint from the exposed lintel surfaces using wire brushes, palm sanders, etc. to a surface acceptable to the coating manufacturer to receive primer.
- D. Primer Application: Apply primer in accordance to coating manufacturers recommendations only after cleaning and proper surface preparation.
- E. Crack Seam Preparation:
 - 1. Grind or rout cracks to ¼ inch X ¼ inch and remove dust.
 - 2. Tool sealant so that it fully penetrates the seam to the top side of the lintel. Leave ¼ inch bead of sealant on the exposed underside of the lintel. After primer is fully cured, install sealant to all seams between metal plates.

3.03 INSTALLATION

- A. Finish Coats:
 - 1. Apply prime coat in a thin roll or brush coat to surface to be coated.
 - 2. Re-coat primed and sealed substrates where there is evidence of suction spots or unsealed areas in first coat to assure a finish coat with no burn-through or other defects due to insufficient sealing.
- B. Apply detail coat of coating over crack repair areas.

- C. Apply coating by brush, roller, or other application method in accordance with coating manufacturer's directions. Use brushes best suited for type of material being applied. Use rollers as recommended by manufacturer for material and texture required.
- D. Apply coating system with a minimum of two coats, or more if required, to prevent bleed through of substrate color. Apply additional coats when topcoats or other conditions show through final coat until cured film is of uniform finish, color, and appearance. Apply finish in pinhole free, continuous membrane.
- E. Minimum Paint Thickness:
 - 1. Number of coats and finished coating film thickness required is same regardless of application method.
 - 2. Do not apply succeeding coats until previous coat has cured as recommended by coating manufacturer.
 - 3. Apply each material no thinner than manufacturer's recommended spreading rate.
 - 4. Provide total dry film thickness of entire coating system as required by manufacturer unless otherwise indicated.
- F. Brush Applications:
 - 1. Brush-out and work brush coats onto surfaces in an even film.
 - 2. Eliminate cloudiness, spotting, pin holes, laps, brush marks, runs, sags, ropiness or other surface imperfections.
 - 3. Neatly draw lines and color breaks.
- G. Roller Applications: Backroll to eliminate pinholing. Do not dry roll.
- H. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or re-coat work not in compliance with specified requirements.
- I. Remove masking over adjacent surfaces immediately after completion of coating work.

3.04 CLEANING

- A. During progress of work, remove discarded materials, rubbish, cans, and rags resulting from work from project site daily.

- B. Furnish and lay drop cloths in areas where coating and finishing is being done. Protect all adjacent surfaces from dripping materials. Where it becomes necessary to remove temporary coverings protecting material in place in order to proceed with work, replace or provide other satisfactory means of protection.

END OF SECTION